7E7
TWIN DIODE—REMOTE-CUTOFF PENTODE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage	6.3□	ac or dc volts
Current	0.3□□	amp

Direct Interelectrode Capacitances:°

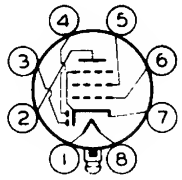
Pentode Unit:			
Grid No.1 to Plate	0.005	max.	μμf
Input	4.6		μμf
Output	5.5		μμf
Diode-No.1 Plate to Grid No.1	0.013	max.	μμf
Diode-No.2 Plate to Grid No.1	0.003	max.	μμf

° With external shield connected to cathode.

Mechanical:

Mounting Position	Any
Maximum Overall Length	2-25/32"
Maximum Seated Length	2-1/4"
Maximum Diameter	1-3/16"
Bulb	T-9
Base	Lock-In 8 Pin
Basing Designation for BOTTOM VIEW	8AE

Pin 1 – Heater
Pin 2 – Pentode Plate
Pin 3 – Diode-No.2 Plate
Pin 4 – Diode-No.1 Plate
Pin 5 – Pentode Grid No.2
Pin 6 – Pentode Grid No.1
Pin 7 – Cathode, Pentode Grid No.3
Pin 8 – Heater
Plug – Base Shell



PENTODE UNIT
AMPLIFIER – Class A_1

Maximum Ratings, ***Design-Center Values*:**

PLATE VOLTAGE	300 max.	volts
GRID-No.2 (SCREEN) VOLTAGE	100 max.	volts
GRID-No.2 SUPPLY VOLTAGE	300 max.	volts
PLATE DISSIPATION	2 max.	watts
GRID-No.2 DISSIPATION	0.3 max.	watt
GRID-No.1 (CONTROL-GRID) VOLTAGE:		
Positive bias value	0 max.	volts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	90 max.	volts
Heater positive with respect to cathode	90 max.	volts

(continued on next page)

□ Nominal voltage = 7.0 volts. □□ Nominal current = 0.32 ampere.

←Indicates a change.

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Typical Operation and Characteristics:				
Plate Voltage	100	250		volts
Grid-No.2 Voltage	100	100		volts
Cathode-Bias Resistor	80	330		ohms
Plate Resistance (Approx.)	0.15	0.7		megohm
Transconductance	160(	1300		μmhos
Grid-No.1 Bias (Approx.) for transconductance of 2 μmhos	-36	-42.5		volts
Plate Current	10	7.5		ma
Grid-No.2 Current	2.7	1.6		ma

DIODE UNITS - Two

Maximum Ratings, ***Design-Center Values:***		
PLATE CURRENT (For Each Diode)	1 max.	ma

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY